Installing NAF under BS2000/OSD - UTM/TIAM

This section describes how to install Natural Advanced Facilities under BS2000/OSD.

- Prerequisites
- Installation Tape
- Installation Procedure

Prerequisites

- Base Natural Version 2.3 or above must be installed.
- The Natural UTM/TIAM interfaces must be installed.

Installation Tape

The installation tape contains the datasets listed in the table below. The sequence of the datasets is shown in the Report of Tape Creation which accompanies the installation tape.

Dataset Name	Contents
NAF*nnn*.PAMS	Natural Advanced Facilities modules.
NAF*nnn*.MACS	Natural Advanced Facilities macros.
NAF*nnn*.INPL	INPL file for libraries SYSPOOL and SYSPRINT.
NAF*nnn*.ERRN	Natural Advanced Facilities error messages.
NAF*nnn*.SYSF	Empty sample spool file; input to Adabas load utility.

The notation *nnn* in dataset names represents the version number of the product.

Copying the Tape Contents to Disk

If you are not using System Maintenance Aid, adapt and run job E.NAFTAPE to copy the datasets from tape to disk. E.NAFTAPE is contained in job dataset NAT*nnn*.JOBS on the Natural installation tape.

The space each dataset requires on disk is shown in the Report of Tape Creation.

Installation Procedure

For installation, use the jobs provided on your Natural tape (names begin with NAF).

Step 1: Load the Spool File - Job I050, Step 0300

You **must** generate a new spool file because the Adabas FDT used in Version 2.3 is not compatible with the one used in Version 2.2.

Load the Natural Advanced Facilities spool file contained in NAF*nnn*.SYSF using the ADALOD utility. An initial size of one cylinder for this file will be sufficient. The following parameters are mandatory

```
VERSION=6
ISNREUSE=YES
```

to cause Adabas to reuse the ISN of a deleted record. For the file number <fspool>, you may choose any value.

Step 2: Create Parameter Module NAFB2P - Job I055, Step 0300

Assemble the source module ANAFB2P, which is contained in dataset LIB.NAT*nnn*. If Natural Security is installed, check the LOGON command to application SYSPRINT.

The following examples illustrate how the parameters may be set.

Example 1 - Installation with Natural Security and two Spool Servers:

```
DC01    = NAFDCAM1
DC02    = NAFDCAM2
DC03    = NO
.
.
.
.
.
DC30    = NO
NAFERK1 = NAFP1
NAFERK2 = NAFP2
PA01    = 'STACK=(LOGON SYSPRINT,user1,passw;SVPBS201)'
PA02    = 'STACK=(LOGON SYSPRINT,user2,passw;SVPBS201)'
PA03    = 'NO'
.
.
.
.
.
PA30    = 'NO'
```

Example 2 - Installation without Natural Security and one Spool Server:

```
DC01    = NAFDCAM1
DC02    = NO
.
.
.
.
.
.
DC30    = NO
NAFERK1 = NAFP1
NAFERK2 = NAFP2
PA01    = 'STACK=(LOGON SYSPRINT;SVPBS201)'
PA02    = 'NO'
.
.
.
.
.
PA30    = 'NO'
```

Note:
If Natural Security is installed, link the library SYSPRINT to a user which is normally not active in the security environment. Moreover, link SYSPRINT to as many users as there are spool servers (1-9).

The parameters for DCAM connection (DC01 - D30) and for P1-EVENTING (NAFERK1, NAFERK2) must be different from those used for the same function in any other application for the same CPU.

Parameter	Meaning
DC01 - DC30	7 bytes indicating the name of the corresponding DCAM application. Unused entries should be set to NO.
NAFERK1	8 bytes indicating the event ID for the communication between the online Natural and the spool server(s) and defining the name of the used common memory pool.
NAFERK2	8 bytes indicating the event ID for the automatic startup for spool server(s) using TP monitor UTM and the corresponding parameter SPOOL=(*name,number*).
PA01 - PA30	Stack data for the initialization of Natural using the following format: **STACK=(LOGON** *library***,** *userid***;** *programname***)** If Natural Security is installed the format is as follows: **STACK=(LOGON** *library***,** *userid***,** *password***;** *programname***)** Unused parameters must be set to NO.
MONEVT	Name of the event ID for the BS2000/OSD monitor task (8 bytes maximum).
PAMO	LOGON command for the monitor task. The start program must always be set to SVPMON01.
CMPSIZE	Specifies the size of the NAF Common Memory Pool (in units of 64 KB).
RSOFORM	Specifies the name of a form to be used by the spool server when output is sent to an RSO printer. The information in the report is ignored. If value ’ ’ is used, the information from the report is used.
BS2FORM	Specifies the name of a form to be used by the spool server when output is sent to a system printer. The information in the report is ignored. If value ’ ’ is used, the information from the report is used.
PASEC	Determines whether at LOGON, the spool server uses the FSEC value applicable to the invoking online application. (YES/NO).
PANAT	Determines whether at LOGON, the spool server uses the FNAT value applicable to the invoking online application. (YES/NO).
ISO	Determines whether the spool server(s) use(s) a DCAM ISO application in addition to the DCAM NEA application. (YES/NO).
RSOPROT	Determines whether the RSO messages resulting from the PRINT invokation are to be written to a log if logical printers with RSO support are used. YES: log is written to SYSLST02. NO: no log.
MAXERR	Specifies the maximum number of acceptable Natural spool server abends (abnormal termination of Natural). If the specified limit is exceeded, the spool server terminates itself. 0: no limit. 1 to 255: limit .

Step 3: Modify NATPARM - Job I060, Step 0010 and Job I080, Step 0109

Modify the parameters FSPOOL, NTPRINT, NAFUPF and NAFSIZE in NATPARM according to your site requirements. For more information on these parameters, see Natural Profile Parameters for NATSPOOL.

Assemble and link the Natural parameter module NATPARM.

Step 4: Link the Natural Nucleus - Job I060, Step 3801

Add the following INCLUDE statements to the sources LNATSHAR in library LIB.NAT*nnn*:


```
INCLUDE  NAFNUC   ,NAFnnnMOD
INCLUDE  NAFREENT  ,NAFnnnMOD
INCLUDE  NAFB2RSO ,NAFnnnMOD
INCLUDE  NAFSERVR ,NAFnnnMOD
```

Step 5: Load the System Programs - Job I061, Step 0300

Load the Natural Advanced Facilities system programs into the Natural system file using the Natural INPL utility. INPL loads the maintenance programs under the application IDs SYSPOOL and SYSPRINT.

Ensure that INPL finishes with the message "Natural Advanced Facilities initialized by INPL". If this initialization fails, various problems will be encountered at execution time.

This INPL file contains the source for all maps used in the Natural Advanced Facilities system.

These maps are provided in source form to enable users to customize the system (for example, to translate the maps from English to another language).

If these maps are modified, ensure that all fields have the same format/length/relative position in the map. Failure to abide by this restriction will result in an invalid system.

Step 6: Load the Error Messages - Job I061, Step 0302

Load the Natural Advanced Facilities error messages file (dataset NAF*nnn*.ERRN) using the ERRLODUS program as described in the Natural SYSERR Utility documentation.

Step 7: Link the Spool Server - Job I065, Steps 0100, 0110, 0111, 0201

Link source members LNAFSERV, LNAFMEND, LNAFSEND and LNAFMON in library LIB.NAT*nnn*.

Step 8: Relink Natural Front-End Parts - Job I080, Steps 0100, 0200

Add the following INCLUDE statements to the sources LNUTFRNT, LNRTFRNT and/or LNATFRNT in library LIB.NAT*nnn*:

```
INCLUDE  NAFB2P   ,LIB.NATnnn
INCLUDE  NAFFRONT ,NAFnnnMOD
```

Step 9: Natural Advanced Facilities and Natural Security

This step must only be performed, if Natural Advanced Facilities is being installed in a Natural Security environment.

Define SYSPOOL to Natural Security with startup program MENU.

Step 10: Start Natural

Start Natural and add the user profile, as defined in the NAFUPF parameter of NATPARM, to the SYSPOOL file using Function 31.1.

Note:
A NAT7201 message is issued at the start of the session indicating that the profile has not yet been added to the SYSPOOL file.

Step 11: Create NATSPOOL Environment

If you already have a Natural Advanced Facilities 2.2 spool file and you want to use it under Version 2.3, its contents must be converted to the newly generated Version 2.3 spool file. This is done using the CONVERT command in library SYSPOOL, see Conversion from Version 2.2.

Note:
A Version 2.1.n spool file cannot be converted directly to Version 2.3.n. It must first be converted to Version 2.2.n.

After conversion, you must specify the general spool file options and the system-specific options for the spool server. See Function 30.5.

To initialize a new NATSPOOL environment, see NATSPOOL Initialization.

